

M.Sc. Semester - 3 (CBCS) Examination

Oct/Nov. -2019– [OLD COURSE]

ORGANIC SYNTHESIS- A DISCONNECTION APPROACH (CORE)

Time: 2:30 Hours

Marks: 70

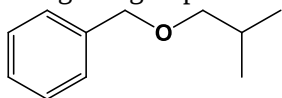
Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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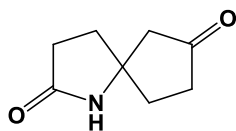
Q.1 Answer any seven of the following ten questions.

[14]

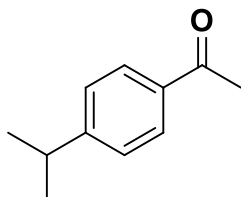
1. What is disconnection analysis? Explain in brief.
2. Define (i) Synthons (ii) Synthetic equivalent
3. What is umpolung?
4. How will you disconnect compound having 1,2-diketone groups?
5. What is FGR strategy? Explain with one example.
6. Enlist various protecting strategy for $-NH_2$ group.
7. Using one group disconnection strategy, explain the retro-synthesis of the following TM:



8. Using two group disconnection strategy, explain the retro-synthesis of the following TM:



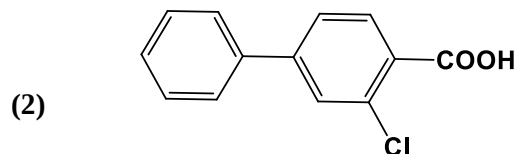
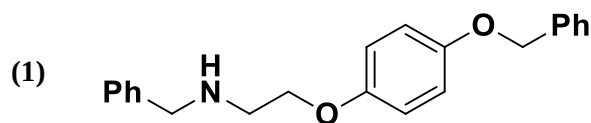
9. Create disconnection analysis using the strategy *order of events* & propose synthesis for following TM:

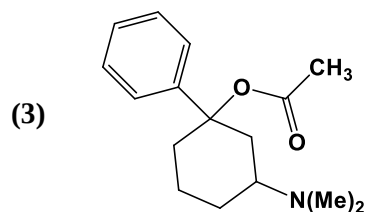


10. What is reconnect strategy? Explain with one example.

Q.2 Answer any two of the following three questions.

[14]

Explain the disconnection analysis & proposed synthesis of **any two** TM from the followings three.



Q.3 Answer the following questions.

[14]

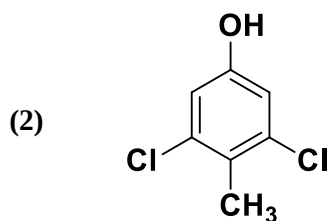
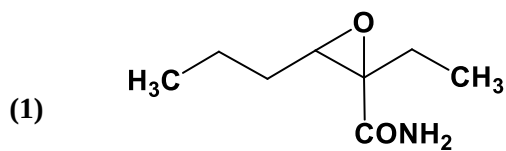
1. Enlist various synthon & synthetic equivalent for aromatic electrophilic and nucleophilic substitution reactions.
2. Explain disconnection strategy for carbonyl compounds having consonant & dissonant polarity with suitable example.

OR

Q.3 Answer the following questions.

[14]

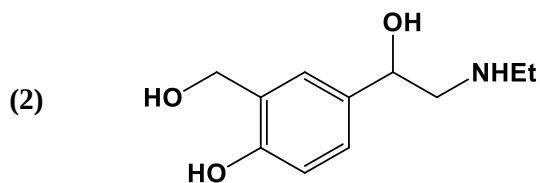
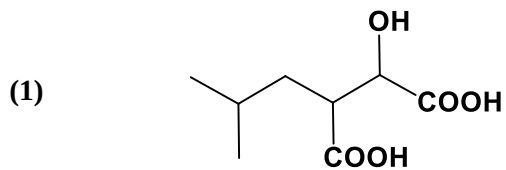
Explain the disconnection analysis and proposed synthesis of the following TM:



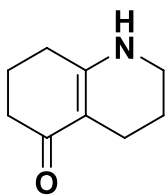
Q.4 Answer any two of the following three questions.

[14]

Explain the disconnection analysis & proposed synthesis of **any two** target molecules from the following.



(3)

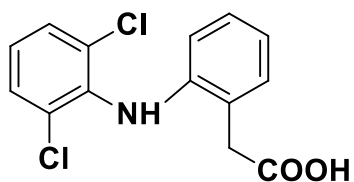


Q.5 Answer any two of the following four questions.

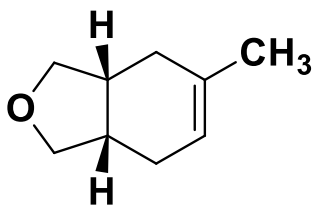
[14]

Give the disconnection strategy and synthesis of **any two** from following the following.

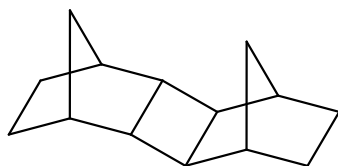
(1)



(2)



(3)



(4)

